32

CLAIMS

WHAT IS CLAIMED IS:

1.   A method for decoding compressed image data recorded in an optical disk

5   comprising the steps of:

recording program data, which can perform partial decoding, in addition to said

compressed image data, in said optical disk in advance;

recording said program data, which can perform partial decoding, in a memory

of an electronic device, when said optical disk is loaded in said electronic device;

10   reading said compressed image data from said optical disk into said electronic

device and using a decoding unit arranged in said electronic device to decode said

compressed image data partially; and

decoding said compressed image data, which has been decoded partially, by

said program data, which is recorded in said memory of said electronic device and can

15   perform partial decoding.

2.   A method for decoding compressed image data according to claim 1, wherein the

step of recording said program data, which can perform partial decoding, in said

memory of an electronic device when said optical disk is loaded in said electronic

20   device, further includes the step of recording said program data in a memory card,

which is an auxiliary recording device removably installed in said electronic device.

3.   A method for decoding compressed image data according to claim 1, wherein the

step of recording said program data, which can perform partial decoding, in said

25   memory of said electronic device when said optical disk is loaded in said electronic

device further includes the steps of recording said program data temporally in a

memory card, which is an auxiliary recording device removably installed in said

33

electronic device, and recording said program data having been recorded in said memory card, in a main memory within said electronic device then.

4.　A method for decoding compressed image data according to claim 1, wherein the step of recording said program data, which can perform partial decoding, in said memory of said electronic device when said optical disk is loaded in said electronic device further includes the step of loading and recording said program data in a ROM, which is provided in said electronic device and can be written at least once.

5.　A method for decoding compressed image data according to claim 1, wherein the step for recording said program data, which can perform partial decoding, in said memory of said electronic device when said optical disk is loaded in said electronic device further includes the steps of loading and recording said program data recorded in a ROM, which is provided in said electronic device and can be written at least once, and then recording said program data recorded in said ROM, which can be written at least once, in said main memory within said electronic device.

6.　A method for decoding compressed image data according to any one of claims 4 or 5, wherein said ROM which can be written at least once is a flash memory.

7.　A method for decoding compressed image data according to any one of claims 1 to 5, wherein said optical disk is a CD-ROM, a DVD-ROM or a DVD-VIDEO.

8.　A method for decoding compressed image data according to any one of claims 1 to 5, wherein said electronic device is an entertainment system.

9.　A method for decoding compressed image data according to any one of claims 1

34

to 5, wherein said electronic device is a game device and said compressed image data is a game program.

10.   A method for decoding compressed image data according to any one of claims 1

5   to 5, wherein said compressed image data is compressed based on the MPEG method, which is a motion picture compression international standard.

11.   A method for decoding compressed image data according to any one of claims 1 to 5, wherein said program data, which is recorded in said optical disk in advance and

10   can perform partial decoding, is movement compensation program data.

12.   A method for decoding compressed image data according to any one of claims 1 to 5, wherein the steps of reading said compressed image data from said optical disk to said electronic device and using a decoding unit arranged within said electronic device

15   to decode said compressed image data partially are performed by VLC decoding means, inverse-quantization means and IDCT means provided in an image decoding means within said electronic device.

13.   A method for decoding compressed image data according to claim 12, wherein

20   said VLC decoding means, inverse-quantization means and IDCT means are configured by hardware means.

14.   An electronic device for decoding compressed image data recorded in an optical disk, comprising at least:

25   image decoding means for reading said compressed image data from said optical disk into said electronic device and decoding said compressed image data partially; and

35

memory means for reading and recording program data, which can perform partial decoding, when said optical disk is loaded in said electronic device, wherein said optical disk being recorded program data, which can perform partial decoding, in advance, in addition to said compressed image data, and wherein said compressed

5　　image data is red from said optical disk into said electronic device, said image decoding means is used to decode said compressed image data partially, and said compressed image data having been decoded is decoded partially by said program data recorded in said memory means in said electronic dev ice.

10　　15.　An electronic device according to claim 14, further comprising a memory card, which is an auxiliary recording device installed removably in said electronic device; wherein program data, which is recorded in said optical disk and can perform partial decoding, is read and recorded in said memory card, and wherein said compressed image data is read from said optical disk into said electronic device, said image
15　　decoding means is used to decode said compressed image data partially, and said compressed image data having been decoded is partially decoded by said program data recorded in said memory card.

16.　An electronic device according to claim 14, further comprising a memory card,
20　　which is an auxiliary recording device installed removably in said electronic device, wherein program data, which is recorded in said optical disk and can perform partial decoding, is read and temporally recorded into said memory card and further said program data recorded in said memory card is read and recorded into a main memory within said electronic device, and wherein said compressed image data is read from
25　　said optical disk into said electronic device, said image decoding means is used to decode said compressed image data partially, and further said compressed image data having been decoded is partially decoded by said program data recorded in said main

36

memory.

17.   An electronic device according to claim 14, further comprising a ROM, which
can be written at least once, equipped in said electronic device, wherein program data,
5   which is recorded in said optical disk and can perform partial decoding, read and
recorded into said ROM, which can be written at least once, and wherein said
compressed image data is read from said optical disk into said electronic device, said
image decoding means is used to decode said compressed image data partially, and
further said compressed image data having decoded Is partially decoded by said
10   program data recorded in said ROM which can be written at least once.

18.   An electronic device according to claim 14, further comprising a ROM, which
can be written at least once, equipped in said electronic device, wherein program data,
which is recorded in said optical disk and can perform partial decoding, is read and
15   recorded temporally into said ROM which can be written at least once and further
reading and recording said program data recorded in said ROM which can be written
at least once, into a main memory within said electronic device, and wherein said
compressed image data is read from said optical disk into said electronic device, said
image decoding means is used to decode said compressed image data partially, and
20   further said compressed image data having decoded is partially decoded by said
program data recorded in said main memory.

19.   An electronic device according to claim 17 or 18, wherein said ROM, which can
be written at least once, is a flash memory.
25

20.   An electronic device according to any one of claims 14 to 18, wherein said
optical disk is a CD-ROM, a DVD-ROM or a DVD-VIDEO.

37

21. An electronic device according to any one of claims 14 to 18, wherein said electronic device is an entertainment system.

5   22. An electronic device according to any one of claims 14 to 18, wherein:

said electronic device is a game device; and

said compressed image data is a game program.

23. An electronic device according to any one of claims 14 to 18, wherein:

10   said compressed image data is image-compressed based on the MPEG method, which is a moving picture compression international standard.

24. An electronic device according to any one of claims 14 to 18, wherein said program data, which is recorded in said optical disk in advance and can perform partial

15   decoding, is movement compensation program data.

25. An electronic device according to any one of claims 14 to 18, wherein said image decoding means for reading said compressed image data from said optical disk into said electronic device and decoding said compressed image data partially includes

20   VLC decoding means, inverse-quantization means and IDCT means.

26. An electronic device according to claim 25, wherein said VLC decoding means, inverse-quantization means and IDCT means are configured by hardware means.

25   27. An auxiliary recording device installed removably in a device constituting an entertainment system, wherein said auxiliary recording device reads temporally program data recorded in an optical disk loaded in said entertainment system, and

38

writes said program data into a main memory of said entertainment system, and wherein said program data having been written in said main memory cooperates with means provided in said entertainment system to perform a certain function on data read from said optical disk.

5

28.   An auxiliary recording device installed removably in an device constituting an entertainment system, wherein said auxiliary recording means reads and records program data recorded in an optical disk loaded in said entertainment system, and wherein said program data having been written in said auxiliary recording device

10   cooperates with means provided in said entertainment system to perform a certain function on data read from said optical disk.

29.   An auxiliary recording device according to claim 27 or 28, wherein said data read from said optical disk is compressed image data, and said certain function is

15   decoding said compressed image data.

30.   An auxiliary recording device according to claim 27 or 28, wherein said means provided in said entertainment system are configured by hardware means.